| 0% | 1- | / 3 | 7-0 |
|-----|----|-----|-----|
| ()' | ŀ | / 7 | , , |

icle the envelope

PTO/SB/05 (11-00)

Please type a plus sign (+) inside this \oplus

or use through 10/31/2002. OMB 0651-0032 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY PATENT APPLICATION **TRANSMITTAL**

1242/26/2 Attorney Docket No. First Inventor David B. Mount See 1 in Addendum

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Express Mail Label No. EK580268211US

| APPLICATION ELEMENTS ADDRESS TO: Assistant Commissioner for Patent Application Box Patent Application | | | | | ion | | |
|--|--|-----------------------|---------------|--------------------------------|----------------|--------|------------------------------|
| See MPEP chapter 600 concerning utility patent application contents. Washington, DC 20231 | | | | | | 231 | |
| 1. X Fee Transmittal Form (e.g., PTO/SB/17) 7. X CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix) | | | | | | | |
| 2. X Applicant claims See 37 CFR 1.27 | small entity status. 8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) | | | | | | |
| 3. Specification (preferred arrangement) | [Total Pages 162] Computer Readable Form (CRF) | | | | | | |
| | title of the invention b. Specification Sequence Listing on: | | | | | | |
| - Statement Reg | ence to Related Applications egarding Fed sponsored R & D i. X CD-ROM or CD-R (2 copies); or | | | | | | |
| | - Reference to sequence listing, a table, i. paper or a computer program listing appendix | | | | | | |
| - Background of | f the Invention | C. | X State | ements verify | ing identity | of ab | ove copies |
| - Brief Summary - Brief Description | y of the Invention on of the Drawings (if filed) | | ACCQM | PANYING | APPLICA | ATIC | N PARTS |
| - Detailed Described - Claim(s) | | 9. | XXssig | nment Paper | s (cover she | eet & | document(s)) |
| - Abstract of the | e Disclosure | 10. | | FR 3.73(b) S In there is an | | | Power of Attorney |
| 4. X Drawing(s) (35 t | 4. X Drawing(s) (35 U.S.C. 113) [Total Sheets 42] 11. English Translation Document (if applicable) | | | | | | • |
| 5. Oath or Declaration [Total Pages 3] 12. Information Disclosure Copies of II Statement (IDS)/PTO-1449 Citations | | | | | 1 ' | | |
| a. When the statement (IDS)/P10-1449 Statement | | | | | | | |
| Copy from a | Copy from a prior application (37 CFR 1.63 (d)) (for continuation/divisional with Box 18 completed) Copy from a prior application (37 CFR 1.63 (d)) (for continuation/divisional with Box 18 completed) 14. X Return Receipt Postcard (MPEP 503) (Should be specifically itemized) | | | | | 603) | |
| i. DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) 15. Certified Copy of Priority Document(s) (if foreign priority is claimed) | | | | | | | |
| named in the prior application, see 37 CFR 16 Request and Certification under 35 U.S.C. 122 | | | | | 5 U.S.C. 122 | | |
| 1.63(d)(2) and 1.33(b). (b)(2)(B)(i). Applicant must attach form PTO/SB/35 | | | | | form PTO/SB/35 | | |
| 6. Application Data Sheet. See 37 CFR 1.76 or its equivalent. Check for \$1.740.00. | | | | | | | |
| 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, | | | | | | | |
| or in an Application Data Sh | | | | | | | |
| Continuation | Divisional Continuation-in-part | (CIP) . | of prior appl | ication No.: | / | | |
| Prior application information: | Examiner | . of the ories on | Group Art L | | ath as dealer | 41 | to assessment and assessment |
| Box 5b, is considered a part of | of the disclosure of the accompanying of the disclosure of the accompanying of the accompanying of the disclosure of the accompanying of the disclosure of t | continuation or | divisional ap | plication and i | is hereby Inc | corpor | ated by reference. |
| | 19. CORRESP | ONDENCE AD | DRESS | | <u>,</u> | | |
| X Customer Number or Bar Code Label (Inscri © true 1 1 1 1 1 1 1 1 1 | | | | | | | |
| Name | 2529 | 7 | | | | | |
| | PATENT TRADEMAR | K OFFICE | * | | | | |
| Address | | | | | | | |
| City | | State | | | Zip Co | ode | |
| Country | | Telephone | <u> </u> | | Fax | | |
| Name (Print/Type) | Arles A. Taylor, Jr. | Red | nistration I | Vo. (Attorne | v/Agent) | 30.30 | 05 |
| | | 1 | , | | | | |
| Signature Burden Hour Statement: This form | is estimated to take 0.2 hours to complete | te Time will vary | depending u | pon the needs | | | 16, 2001 |

the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.







PTO/SB/17 (11-00)

Approved for use through 10/31/2002. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.

| TOTAL AMOUNT OF PAYMEN | TOTAL | AMOUNT | OF PA | YMEN. |
|------------------------|-------|---------------|-------|-------|
|------------------------|-------|---------------|-------|-------|

(\$) 1740.00

| Complete if Known | | | |
|----------------------|----------------|--|--|
| Application Number | | | |
| Filing Date | | | |
| First Named Inventor | David B. Mount | | |
| Examiner Name | | | |
| Group Art Unit | | | |
| Attorney Docket No. | 1242/26/2 | | |

| METHOD OF PAYMENT | FEE CALCULATION (continued) | |
|---|--|-------------------|
| The Commissioner is hereby authorized to charge | 3. ADDITIONAL FEES | |
| indicated fees and credit any overpayments to: Deposit | Large Small | |
| Account | Entity Entity | To be Delta |
| Number Deposit | Fee Fee Fee Fee Fee Description | Fee Paid |
| Account Name | 105 130 205 65 Surcharge - late filing fee or oath | |
| Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17 | 127 50 227 25 Surcharge - late provisional filing fee or cover sheet | |
| Applicant claims small entity status. | 139 130 139 130 Non-English specification | \longrightarrow |
| See 37 CFR 1.27 | 147 2,520 147 2,520 For filing a request for ex parte reexamination | |
| 2. X Payment Enclosed: X Check Credit card Money Other | 112 920* 112 920* Requesting publication of SIR prior to Examiner action | |
| FEE CALCULATION | 113 1,840° 113 1,840° Requesting publication of SIR after Examiner action | |
| 1. BASIC FILING FEE | 115 110 215 55 Extension for reply within first month | |
| Large Entity Small Entity | 116 390 216 195 Extension for reply within second month | |
| Fee Fee Fee Fee Description Code (\$) Code (\$) Fee Paid | 117 890 217 445 Extension for reply within third month | |
| 101 710 201 355 Utility filing fee | 118 1,390 218 695 Extension for reply within fourth month | |
| 106 320 206 160 Design filling fee | 128 1,890 228 945 Extension for reply within fifth month | |
| 107 490 207 245 Plant filing fee | 119 310 219 155 Notice of Appeal | |
| 108 710 208 355 Reissue filing fee | 120 310 220 155 Filing a brief in support of an appeal | |
| 114 150 214 75 Provisional filing fee | 121 270 221 135 Request for oral hearing | |
| | 138 1,510 138 1,510 Petition to institute a public use proceeding | |
| SUBTOTAL (1) (\$) 355.00 | 140 110 240 55 Petition to revive - unavoidable | |
| 2. EXTRA CLAIM FEES | 141 1,240 241 620 Petition to revive - unintentional | |
| Extra Claims below Fee Paid | 142 1,240 242 620 Utility issue fee (or reissue) | |
| Total Claims 110 -20" = 90 x 9 = 810 | 143 440 243 220 Design issue fee | |
| Independent | 144 600 244 300 Plant issue fee | |
| Multiple Dependent 135 = 135 | 122 130 122 130 Petitions to the Commissioner | |
| | 123 50 123 50 Processing fee under 37 CFR 1.17(q) | |
| _ Large Entity Small Entity Fee Fee Fee Fee Description | 126 180 126 180 Submission of Information Disclosure Stmt | |
| Code (\$) Code (\$) 103 18 203 9 Claims in excess of 20 | 581 40 581 40 Recording each patent assignment per property (times number of properties) | |
| 102 80 202 40 Independent claims in excess of 3 | 146 710 246 355 Filing a submission after final rejection (37 CFR § 1.129(a)) | |
| 104 270 204 135 Multiple dependent claim, if not paid | 149 710 249 355 For each additional invention to be | |
| 109 80 209 40 ** Reissue independent claims over original patent | examined (37 CFR § 1.129(b)) | |
| 110 18 210 9 ** Reissue claims in excess of 20 | 179 710 279 355 Request for Continued Examination (RCE) | |
| and over original patent | 169 900 169 900 Request for expedited examination of a design application | |
| SUBTOTAL (2) (\$) 1385.00 | Other fee (specify) | |
| **or number previously paid, if greater; For Reissues, see above | *Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) | ן טע |

| SUBMITTED BY Complete (if applicable) | | | | | f applicable) |
|---------------------------------------|----------------------|-----------------------------------|--------|-----------|---------------|
| Name (Print/Type) | Arles A. Taylor, Jr. | Registration No. (Attorney/Agent) | 39,395 | Telephone | (919)493-8000 |
| Signature | mler a. Josh , J. | | | Date | april 16,2001 |

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Addendum

1. PURIFIED AND ISOLATED POTASSIUM-CHLORIDE COTRANSPORTER NUCLEIC ACIDS AND POLYPEPTIDES AND THERAPEUTIC AND SCREENING METHODS USING SAME





JENKINS & WILSON, P.A.

PATENT ATTORNEYS
SUITE 1400 UNIVERSITY TOWER
3100 TOWER BOULEVARD
DURHAM, NORTH CAROLINA 27707

TELEPHONE (919) 493-8000 FACSIMILE (919) 419-0383

WEBSITE JENKINSANDWILSON.COM RALEIGH OFFICE

NCSU CENTENNIAL CAMPUS
VENTURE II SUITE 400
920 MAIN CAMPUS DRIVE
RALEIGH, NORTH CAROLINA 27606

TELEPHONE (919) 424-3710 FACSIMILE (919) 424-3711

April 16, 2001

Commissioner for Patents BOX PATENT APPLICATION Washington, D.C. 20231

Re:

U.S. Patent Application for PURIFIED AND ISOLATED POTASSIUM-CHLORIDE COTRANSPORTER NUCLEIC ACIDS AND POLYPEPTIDES AND THERAPEUTIC AND SCREENING METHODS USING SAME

Our File No. 1242/26/2

Sir:

RICHARD E. JENKINS

JEFFREY L. WILSON ARLES A. TAYLOR, JR.

JENNIFER L. SKORD

DAVID P. GLOEKLER

JOHN A. LAMERDIN, PhD. (PATENT AGENT)

JULIE A. BROADUS, PhD. (PATENT AGENT)

DAVID P. STITZEL (PATENT AGENT)

E. ERIC MILLS, P.E. (PATENT AGENT)

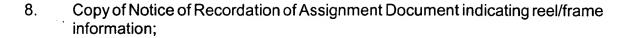
GREGORY A. HUNT

Please find enclosed the following:

- A U.S. patent application for PURIFIED AND ISOLATED POTASSIUM-CHLORIDE COTRANSPORTER NUCLEIC ACIDS AND POLYPEPTIDES AND THERAPEUTIC AND SCREENING METHODS USING SAME (162 pages);
- 2. Forty-two (42) sheets of drawings;
- Unexecuted Declaration (3 pages);
- Copy of previously recorded executed Assignment (3 pages);
- 5. Utility Patent Application Transmittal Form (Form PTO/SB/05, 2 pages);
- 6. Fee Transmittal Form (Form PTO/SB/17) in duplicate;
- Copy of previously filed Recordation Form Cover Sheet (Form PTO-1595, 1 page);



Commissioner for Patents April 16, 2001 Page 2



- Sequence Listing in Computer Readable Form (the undersigned hereby verifies the identity of the computer readable form of the Sequence Listing and the Sequence Listing as presented on the enclosed compact discs);
- 10. Sequence Listing on compact disc (in duplicate);
- 11. Transmittal Letter for Compact Discs (CDs) Bearing Sequence Listing Copy 1);
- 12. Transmittal Letter for Compact Discs (CDs) Bearing Sequence Listing Copy 2);
- 13. A check in the amount of \$1740.00 to cover the application filing fee;
- 14. A return-receipt postcard to be returned to our offices with the U.S. Patent and Trademark Office date stamp thereon; and
- 15. A Certificate of Express Mail No.: EK580268211US.

Please contact our offices if there are any questions.

Although a check is being submitted, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment associated with the filing of this correspondence to Deposit Account Number <u>50-0426</u>.

Respectfully submitted,

JENKINS & WILSON, P.A.

Arles A. Taylor, Jr.

Registration No. 39,395

AAT/ajm

Enclosures



BEARING SEQUENCE LISTING - COPY 1

Title of Invention:

PURIFIED AND ISOLATED POTASSIUM-

CHLORIDE COTRANSPORTER NUCLEIC

ACIDS AND POLYPEPTIDES AND

THERAPEUTIC AND SCREENING METHODS

USING SAME

Applicants:

David B. Mount, Eric Delpire, Gererdo Gamba,

Alfred L. George, Jr.

Attorney Docket No.:

1242/26/2

Customer No.:

25297

Filing Date:

April 16, 2001

<u>Description of Compact Discs Bearing Sequence Listing:</u>

The Sequence Listing associated with the disclosure of the abovenoted application has been submitted as an about 275 kilobyte file on
compact disc (in duplicate). The duplicate compact discs, Copy 1 and Copy
2, are identical. The enclosed compact discs include one (1) file as follows:
File Name (1242-26-2.txt.txt), Creation Date (April 15, 2001), Computer
System (IBM-PC/MS-DOS/MS-Windows).

Respectfully submitted,

JENKINS & WILSON, P.A.

Arles A. Taylor, Jr.

Registration No. 39,395